

## **REMARKS**

**[0001]** Applicant's attorney respectfully requests reconsideration and allowance of all of the claims of the application. Claims 1-10 and 25-35 are presently pending. Claims 25, 31, and 35 are amended herein.

### **Formal Request for an Interview**

**[0002]** If the Examiner's reply to this communication is anything other than allowance of all pending claims, then I formally request an interview with the Examiner. I encourage the Examiner to call me—the undersigned representative for the Applicant—so that we can talk about this matter so as to resolve any outstanding issues quickly and efficiently over the phone.

**[0003]** Please contact me to schedule a date and time for a telephone interview that is most convenient for both of us. While email works great for me, I welcome your call as well. My contact information may be found on the last page of this response.

### **Allowable Subject Matter**

**[0004]** Applicant's attorney would like to thank the Examiner for allowing claims 1-10, 26-28, 32, and 33. These claims have not been amended and, therefore, remain allowable. These claims have not been amended and, therefore, remain allowable.

## **Substantive Matters**

### **Claim Rejections under § 102**

**[0005]** The Examiner rejects claims 25, 29-31 and 34-35 under § 102. For the reasons set forth below, the Examiner has not shown that the cited reference anticipates the rejected claims.

**[0006]** Accordingly, Applicant's attorney respectfully requests that the § 102 rejections be withdrawn and the case be passed along to issuance.

**[0007]** The Examiner's rejections are based upon the following reference:

- **US Patent No. 5,834,987 to Dent: "Dent"** hereinafter, (issued November 10, 1998).

## **Anticipation Rejections**

**[0008]** Applicant's attorney submits that the anticipation rejections are not valid because, for each rejected claim, no single reference discloses each and every element of that rejected claim.<sup>1</sup> Furthermore, the elements disclosed in the single reference are not arranged in the manner recited by each rejected claim.<sup>2</sup>

### **Based upon *Dent***

**[0009]** The Examiner rejects claims 25, 29-31 and 34-35 under 35 U.S.C. § 102(b) as being anticipated by *Dent*. Applicant's attorney respectfully traverses the rejection of these claims. Based on the reasons given below, Applicant's attorney asks the Examiner to withdraw the rejection of these claims.

### **Independent Claim 25**

**[0010]** Applicant's attorney submits that *Dent* does not anticipate this claim because it does not disclose all of the elements as recited in this claim. In specific, claim 25 recites a control circuit coupled to the phase-frequency detector and operable to generate a digital conditioning signal based on a modulation value and the feedback signal. Thus, with reference to FIG. 1A, in an embodiment, the signal Nc is a digital signal that is derived from a modulation

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<sup>1</sup> "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987); also see MPEP §2131.

<sup>2</sup> See *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990).

value  $x(n)$  and a feedback signal  $V_b$ . That is, the digital conditioning signal  $N_c$  that is eventually converted to an analog signal  $I_c$  and summed with the detected phase error signal begins as a digital signal. A digital-to-analog converter is used to transducer the signal into an analog signal for summation. Such a digital conditioning signal is produced by the nature of the control block in FIG. 1a.

**[0011]** In contrast, *Dent* does not teach that any signal used for conditioning or otherwise is digital. All of the elements shown and described in FIG. 3 of *Dent* are analog components and therefore, there is no need for any DAC in the system of *Dent*. The Examiner tacitly acknowledges this difference in the allowance of claims 26 and 32. Therefore, by proxy, claim 25 is also allowable with such a similar digital signal.

**[0012]** Further, even if one were to somehow construe the Fractional-N accumulator as to somehow generate a digital conditioning signal (which it does not), such a signal is still not used to generate a control signal based on a summation of the phase-error signal and an analog conversion of this digital conditioning signal as recited in claim 25. That is, the output of the Fractional-N accumulator is not used in *Dent* to influence the actual error generated by the loop.

**[0013]** Consequently, *Dent* does not disclose all of the elements and features of this claim. Accordingly, Applicant's attorney asks the Examiner to withdraw the rejection of this claim.

#### Dependent Claims 29-30

**[0014]** These claims ultimately depend upon independent claim 25. As discussed above, claim 25 is allowable. It is axiomatic that any dependent claim which depends from an allowable base claim is also allowable. Additionally, some or all of these claims may also be allowable for additional independent reasons.

#### Independent Claim 31

**[0015]** Applicant's attorney submits that *Dent* does not anticipate this claim because it does not disclose all of the elements as recited in this claim. In specific, claim 31 recites modifying the phase-error signal with an analog conditioning signal that is based upon the digital conditioning signal. As discussed above, *Dent* does not teach any digital signals and, therefore, claim 31 is allowable over the prior art of record.

**[0016]** Consequently, *Dent* does not disclose all of the elements and features of this claim. Accordingly, Applicant's attorney asks the Examiner to withdraw the rejection of this claim.

#### Dependent Claim 34

**[0017]** This claim ultimately depends upon independent claim 31. As discussed above, claim 31 is allowable. It is axiomatic that any dependent claim which depends from an allowable base claim is also allowable. Additionally, this claim may also be allowable for additional independent reasons.

Independent Claim 35

**[0018]** Applicant's attorney submits that *Dent* does not anticipate this claim because it does not disclose all of the elements as recited in this claim. In specific, claim 35 recites the control signal is based on a summation of the phase-error signal and analog conversion of the digital conditioning signal. As discussed above, *Dent* does not teach any digital signals and, therefore, claim 35 is allowable over the prior art of record.

**[0019]** Consequently, *Dent* does not disclose all of the elements and features of this claim. Accordingly, Applicant's attorney asks the Examiner to withdraw the rejection of this claim.

## **Conclusion**

**[0020]** All pending claims are in condition for allowance. Applicant's attorney respectfully requests reconsideration and prompt issuance of the application. If any issues remain that prevent issuance of this application, the **Examiner is urged to contact me before issuing a subsequent Action.** Please call or email me at your convenience.

**[0021]** Any additional fees required as a result of this amendment have been paid from the below-referenced deposit account as filed herewith. Should further payment be required to cover such fees you are hereby authorized to charge such payment to Deposit Account No. 07-1897.

Respectfully Submitted,

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Representatives for Applicant

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